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PIZZA SALES REPORT

OBJECTIVE

THIS REPORT LEVERAGES SQL QUERIES WITHIN SSMS TO COMPREHENSIVELY ANALYZE PIZZA SALES DATA. THE ANALYSIS AIMS TO IDENTIFY KEY TRENDS, CUSTOMER PREFERENCES, AND AREAS FOR IMPROVEMENT, ULTIMATELY EMPOWERING DATA-DRIVEN DECISION-MAKING TO BOOST SALES PERFORMANCE, OPTIMIZE OPERATIONS, SUPPORT STRATEGIC PLANNING.

TABLE SCHEMA

ORDER_DETAILS

<u>order_details_id</u>	order_id	pizza_id	quantity
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ORDERS

order_id	date	time
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PIZAA_TYPES

pizza_type_id	name	category	ingredients
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PIZZAS

pizza_id	pizza_type_id	size	price
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- **RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.**

SELECT COUNT(ORDER_ID) AS TOTAL_ORDERS FROM [DBO].[ORDERS]

Total_Orders
21350

- **CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.**

**SELECT ROUND(SUM(OD.QUANTITY*P.PRICE),2) AS TOTAL_REVENUE FROM
[DBO].[PIZZAS] P INNER JOIN [DBO].[ORDER_DETAILS] OD ON
OD.PIZZA_ID=P.PIZZA_ID**

Total_revenue
817860.05

- **IDENTIFY THE HIGHEST-PRICED PIZZA.**

SELECT * FROM PIZZAS WHERE PRICE = (SELECT MAX(PRICE) FROM PIZZAS)

pizza_id	pizza_type_id	size	price
the_greek_xxl	the_greek	XXL	35.9500007629395

- **IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.**

**SELECT TOP 1 P.SIZE, SUM(OD.QUANTITY) AS ORDER_COUNT FROM PIZZAS P
INNER JOIN [DBO].[ORDER_DETAILS] OD ON P.PIZZA_ID=OD.PIZZA_ID
GROUP BY P.SIZE ORDER BY SUM(OD.QUANTITY) DESC**

size	Order_count
L	18956

- **LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES**

```
SELECT TOP 5 PT.NAME, SUM(OD.QUANTITY) AS TOTAL_ORDERS  
FROM  
[DBO].[ORDER_DETAILS] OD INNER JOIN [DBO].[PIZZAS] P ON  
P.PIZZA_ID=OD.PIZZA_ID INNER JOIN [DBO].[PIZZA_TYPES] PT  
ON PT.PIZZA_TYPE_ID=P.PIZZA_TYPE_ID  
GROUP BY PT.NAME  
ORDER BY SUM(OD.QUANTITY) DESC
```

Name	Total_orders
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371

- **JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED.**

```
SELECT PT.CATEGORY, SUM(OD.QUANTITY) AS TOTAL_QUANTITY  
FROM  
[DBO].[ORDER_DETAILS] OD INNER JOIN [DBO].[PIZZAS] P ON  
P.PIZZA_ID=OD.PIZZA_ID INNER JOIN [DBO].[PIZZA_TYPES] PT  
ON PT.PIZZA_TYPE_ID=P.PIZZA_TYPE_ID  
GROUP BY PT.CATEGORY  
ORDER BY SUM(OD.QUANTITY) DESC
```

	Category	Total_Quantity
1	Classic	14888
2	Supreme	11987
3	Veggie	11649
4	Chicken	11050

- **DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.**

**SELECT DATEPART(HOUR,TIME) AS ORDER_TIME, COUNT(ORDER_ID) AS
ORDERS_PER_HOUR FROM [ORDERS]
GROUP BY DATEPART(HOUR,TIME) ORDER BY ORDERS_PER_HOUR DESC**

	Order_Time	Orders_Per_Hour
1	12	2520
2	13	2455
3	18	2399
4	17	2336
5	19	2009
6	16	1920
7	20	1642
8	14	1472
9	15	1468
10	11	1231
11	21	1198
12	22	663
13	23	28
14	10	8
15	9	1

- **DETERMINE THE DISTRIBUTION OF AVG ORDERS BY DAY OF THE WEEK.**

**SELECT ORDER_DAY, AVG(ORDERS_PER_DAY) AS
AVG_ORDERS_PER_DAY FROM
(SELECT DATENAME(DW,DATE) AS ORDER_DAY, COUNT(ORDER_ID) AS
ORDERS_PER_DAY FROM [ORDERS]
GROUP BY DATENAME(DW,DATE)) A
GROUP BY ORDER_DAY**

	Order_Day	Avg_Orders_Per_Day
1	Saturday	3158
2	Wednesday	3024
3	Monday	2794
4	Sunday	2624
5	Friday	3538
6	Thursday	3239
7	Tuesday	2973

- **GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY.**

```
SELECT AVG(TOTAL_ORDERS_PER_DAY) AS AVG_ORDERS_PER_DAY  
FROM  
(SELECT O.DATE AS ORDER_DATE, SUM(OD.QUANTITY) AS  
TOTAL_ORDERS_PER_DAY  
FROM [DBO].[ORDER_DETAILS] OD  
INNER JOIN [DBO].[ORDERS] O ON OD.ORDER_ID=O.ORDER_ID  
GROUP BY O.DATE ) TOTAL_ORDERS
```

Avg_Orders_per_day

138

- **DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE.**

```
SELECT TOP 3 PT.NAME, SUM(P.PRICE*OD.QUANTITY) AS REVENUE  
FROM [DBO].[PIZZAS] P  
INNER JOIN [DBO].[ORDER_DETAILS] OD  
ON P.PIZZA_ID=OD.PIZZA_ID INNER JOIN [DBO].[PIZZA_TYPES] PT ON  
PT.PIZZA_TYPE_ID =P.PIZZA_TYPE_ID  
GROUP BY PT.NAME  
ORDER BY SUM(P.PRICE*OD.QUANTITY) DESC
```

	name	revenue
1	The Thai Chicken Pizza	43434.25
2	The Barbecue Chicken Pizza	42768
3	The California Chicken Pizza	41409.5

- **CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE.**

```
SELECT PT.CATEGORY,  
CONCAT(ROUND(SUM(P.PRICE*OD.QUANTITY)*100/ ( SELECT  
SUM(P.PRICE*OD.QUANTITY) AS TOTAL_REVENUE  
FROM  
[DBO].[ORDER_DETAILS] OD INNER JOIN [DBO].[PIZZAS] P ON  
OD.PIZZA_ID=P.PIZZA_ID),2),'%') AS REVENUE_PER_CATEGORY  
FROM [DBO].[PIZZA_TYPES] PT INNER JOIN [DBO].[PIZZAS] P ON  
P.PIZZA_TYPE_ID=PT.PIZZA_TYPE_ID  
INNER JOIN [DBO].[ORDER_DETAILS] OD ON OD.PIZZA_ID=P.PIZZA_ID  
GROUP BY PT.CATEGORY ORDER BY REVENUE_PER_CATEGORY DESC
```

	category	Revenue_per_category
1	Classic	26.91%
2	Supreme	25.46%
3	Chicken	23.96%
4	Veggie	23.68%

- **ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME.**

**SELECT ORDER_DATE,ROUND(REVENUE,2) AS REVENUE_PER_DAY,
ROUND(SUM(REVENUE) OVER(ORDER BY ORDER_DATE),2) AS
CUMULATIVE_REVENUE FROM
(SELECT O.DATE AS ORDER_DATE, SUM(P.PRICE*OD.QUANTITY) AS
REVENUE
FROM [DBO].[PIZZAS] P
INNER JOIN [DBO].[ORDER_DETAILS] OD
ON P.PIZZA_ID=OD.PIZZA_ID INNER JOIN[DBO].[ORDERS] O ON
O.ORDER_ID =OD.ORDER_ID
GROUP BY O.DATE) NEW_SALES**

Order_date	Revenue_Per_Day	Cumulative_Revenue
2015-01-01	2713.85	2713.85
2015-01-02	2731.9	5445.75
2015-01-03	2662.4	8108.15
2015-01-04	1755.45	9863.6

- DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY.

```
WITH CTE AS(
SELECT PT.CATEGORY,PT.NAME , SUM(P.PRICE*OD.QUANTITY) AS REVENUE, DENSE_RANK() OVER(PARTITION BY PT.CATEGORY ORDER BY
SUM(P.PRICE*OD.QUANTITY) DESC) AS RN
FROM [DBO].[PIZZAS] P
INNER JOIN [DBO].[ORDER_DETAILS] OD
ON P.PIZZA_ID=OD.PIZZA_ID INNER JOIN [DBO].[PIZZA_TYPES] PT ON PT.PIZZA_TYPE_ID =P.PIZZA_TYPE_ID
GROUP BY PT.NAME, PT.CATEGORY)
SELECT * FROM CTE WHERE RN<=3
```

Category	Name	Revenue	RN
Chicken	The Thai Chicken Pizza	43434.25	1
Chicken	The Barbecue Chicken Pizza	42768	2
Chicken	The California Chicken Pizza	41409.5	3
Classic	The Classic Deluxe Pizza	38180.5	1
Classic	The Hawaiian Pizza	32273.25	2
Classic	The Pepperoni Pizza	30161.75	3
Supreme	The Spicy Italian Pizza	34831.25	1
Supreme	The Italian Supreme Pizza	33476.75	2
Supreme	The Sicilian Pizza	30940.5	3
Veggie	The Four Cheese Pizza	32265.7010040283	1
Veggie	The Mexicana Pizza	26780.75	2
Veggie	The Five Cheese Pizza	26066.5	3

INSIGHTS

- **TOTAL ORDERS - 21350**
- **TOTAL REVENUE - \$ 817860**
- **HIGHEST PRICED PIZZA - \$ 35.95**
- **MOST COMMON SIZE PIZZA ORDERED AND ORDER NUMBER - L AND 18956**
- **TOP SELLING PIZZA NAME - THE CLASSIC DELUXE PIZZA**
- **TOP SELLING PIZZA CATEGORY AND QUANTITY - CLASSIC, 14888**
- **TOP ORDERED PIZZA TIME - 12, 2520**
- **DAY OF THE WEEK WITH HIGHEST AVERAGE PIZZA SOLD - SATURDAY, 3158**
- **AVERAGE ORDERS PER DAY - 138**
- **TOP 3 PIZZA TYPES BY REVENUE- THE THAI CHICKEN PIZZA, THE BARBECUE CHICKEN PIZZA, THE CALIFORNIA CHICKEN PIZZA**
- **TYPE AND % OF TOP SELLING PIZZA - CLASSIC, 26.91%**